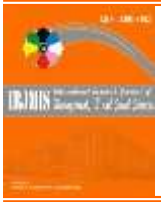

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Characterization of Physical and Motor Disability at the Technical University of Manabí and Its Relationship with Resilience

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Abstract

The work aims to determine the characterization of physical and motor disability and its relation to resilience in the students of the Technical University of Manabí. The paper shows an analysis of physical motor disability in students and its impact on the level of resilience. The resilience analysis was addressed terms physical and mental state of the people, as well as the process of adapting to the problems and adversities of life. The results were shown in tables and graph on the analysis of the degree of physical-motor disability of the students as well as the application of the SV-RES test prepared by the researchers Saavedra & Villalta, 2008. Based on the evaluation of 12 dimensions, which they allow to verify the situation according to three scales: high, average and low. Finally, the conclusions were offered where the objective stated in the investigation was verified.

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1. Introduction

In recent years we have seen with concern how the incidence of chronic and disabling diseases has been increasing progressively. This situation has meant that variables that influence improvement in the quality of life of those affected are studied from different areas.

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The condition of disability causes multiple changes in the life of a person, putting into play different mechanisms that allow him to adapt to the new situation and learn to live with important restrictions that require an effort to realize a normalized life.

Among the variables involved in this process, we can mention the level of social support available to the person, the sociodemographic conditions, the type of disability and the sequelae involved. However, one of the most important factors that will determine the process of adaptation and adjustment is the mode or style of coping of each person [1], [2].

In this sense, a part of the literature has focused in a general way on the styles that trigger negative effects in the traumatic experience and with that, to assume a pessimistic view of human nature [3] [4]. It leads to the idea that there is a generalized response in people who suffer losses or experience traumatic events [5] and to ignore individual differences in response to stressful and painful situations [6], [7].

However, reality shows that, although some people who experience traumatic situations develop disorders. In other situations, this does not happen, and in some, they may even be able to learn and benefit from such experiences [8], [9], [10], [11]; But how does this phenomenon work? Why are some people with disabilities capable of overcoming the many barriers that living with a disability implies and others with fewer limitations?

Answering these questions leads us to think about the existence of other variables of a personal nature that, in interaction with the contextual ones, will determine the coping process in the face of a traumatic event such as living with a disability.

Thus, for some years the concept of resilience has begun to be handled as an explanatory hypothesis of healthy behavior in adverse or high-risk conditions [9]. Resilience has been defined as the capacity of a person that encompasses environmental and personal factors with which the subject faces and overcomes the adversities that occur in his life [12], [8], [13], [14].

Based on this definition, [12] differentiated three defining characteristics of this concept. 1) those that have to do with the support that the person believes he can receive (I have ...). 2) those that have to do with intrapsychic strengths and internal conditions of the person (I am ..., I am) and 3) those that have to do with the skills of the person to relate and solve problems (I can ...).

It follows that this concept is not something static that is inherent in the person, that is, it is not a trait that the person has or does not have, but it can vary over time and circumstances and includes behaviors, thoughts, and actions that can be learned by anyone [15].

Therefore, if we consider that resilience is a capacity that develops and evolves in the existence of the person, its relationship with the events that it faces during its life cycle, as well as in the different stages of life, take on particular importance. relevance [8], [14].

One of the stages that contemplate greater complexity and more abrupt changes is adolescence and youth, being able to accompany this one of other traumatic factors that can happen during the life of the person [15].

Focusing this on disability, most situations in which we think that it appears, we assume that most often is acquired at birth. In this way, the transition from childhood to adolescence and later to adulthood passes through adaptation phases in which, from a very early age, one learns to coexist with this situation, and therefore to develop the aspects resilient from practically the beginning of childhood.

However, there are occasions in which the vital moment in which the disability is detected or ensues is throughout life, as happens when having a spinal cord injury as a result of a traffic accident, a degenerative disease, etc. Undoubtedly, these situations can overwhelm the person, not only because of the traumatic shock but also because of the process of adaptation and change to a new way of life that both the affected person and those around him must experience. Thus, it although disability is painful in any period of life. If it is overcome, it can increase a greater level of mismatch by comparing life before with that of after that traumatic event. Unchained changes in the lives of those affected, which they abruptly move from living healthily and independently to relying on family members or caregivers to carry out their activities of daily life, and therefore, they need to adapt to new ways of life and their relationship with the environment [16].

These two situations, that is to say having a disability acquired from birth or having it overcome throughout life. It will not vary the fact of having a disability, nor will the multitude of physical and mental barriers to which from the disability must be resolved but the ability to cope with them and overcome if it can be different. Therefore, what capacity of resilience is presented from both forms of disability? Can it differ according to the stage in which the disability is acquired? Are people with disabilities more able from birth to overcome obstacles more easily? Or, on the contrary, do people with disabilities overcome during life solve the limitations with which they are more easily found?.

In turn, this term is something very generic, that is, disability is a very ambiguous concept that covers various types of disability, and each of them will have some particularities depending on the severity and limitations that generate. Therefore, if in previous lines we have commented that resilience will vary according to the circumstances in which we find ourselves, it would be interesting to know if from different types of disability a different resilience capacity is generated, in other words, could resilience differ depending on the type of disability?.

As mentioned in previous lines, the experience of living with a disability is not easy in any situation. However, there are some added barriers, above all, of an architectural nature that will prevail more in people with visual and motor disabilities. It means that these people have to make a greater effort to solve these obstacles.

2. Research Methods

The inductive method was applied that allowed to logically reason the concepts associated with resilience in students who suffer physical disability. The investigative techniques associated with the performance of the SV-RES test prepared by the researchers [17] were applied. This instrument is based on the evaluation of 12 dimensions, which allow verifying the situation according to three scales: high, average and low. The dimensions correspond to the following: the identity; autonomy; satisfaction; pragmatism; link; networks; Models; goals; affectivity; self-efficacy; learning and; generativity.

The study is of a quantitative-descriptive nature, of primary data sources, transactional in the collection of information, micro-sociological in its sample coverage. The fields of study are psychology and society. The sample is intentional, looking for the necessary attributes for the study.

The population consists of 88 students with disabilities, and the sample consists of 35 young people with physical disabilities, all enrolled in different careers at the Technical University of Manabí. Table 1 shows the number of students who suffer physical disability by careers.

Table 1
Students who suffer physical disability due to careers

Career	Quantity
Administration	3
Accounting	1
Economy	3
Nursing	3
Language and linguistics	1
Civil Engineering	1
Engineering in Industries	2
Computer systems engineering	2
Mechanical Engineering	1
Chemical engineering	4
Zootechnical Engineering	2
Clinical laboratory	1
Veterinary Medicine	1
Nutrition and diet	1
Optometry	2
Clinical psychology	2
Social work	5
Total	35

Of the total of students with physical disabilities, 18 are women for 51.42%, and 17 are men for 48.58%. With ages between 19 and 37 years. They were classified according to the stage in which they acquired the disability, corresponding 19 young people with acquired disability from birth to 54.3% and 16 with disabilities occurring for 45.7%. According to the degree of physical disability, they are distributed according to what is stated in Table 2.

Table 2
Distribution according to the degree of physical disability

Grade of discapacity (%)	Quantity
Less than 10	1
Between 30 and 39	4
Between 40 and 49	14
Between 50 and 59	3
Between 60 and 69	6
Between 70 and 79	3
Between 80 and 89	4
Less than 10	35

The resilience

The concept of resilience has been studied, approximately, since the second half of the 20th century; it has as its etymological origin the Latin word "resilio" which means to go back, to jump back, to highlight, to bounce [18], [19]. In the field of Psychology, the term resilience becomes important through the works of [20], who believes that resilience "should not be understood as the animated denial of life's difficult experiences, pains, and scars. It is more. However, the ability to move forward, despite this the author himself suggests that it is difficult to identify the roots of the emergence of interest in resilience. Its origin dates back to 1955, with the longitudinal study developed by Emmy Werner and Ruth Smith, studied, over 30 years, a cohort of 698 children born in the Kauai Islands (Hawaii) in unfavorable conditions. In this study, it was found that 80% of the sample did not exhibit psychopathological behaviors being adults, on the contrary. They were optimistic people, with a positive vision, adapted, competent and integrated to their social and cultural context. Despite, this research having been carried out in different resilience has had significant relevance in its emergence and subsequent development [21]. Regarding that moment on, countless studies on childhood resilience were carried out, which went back to the observation of individual self-improvement behaviors. It seemed more isolated and anecdotal cases and, on the other hand, to the evolutionary study of children who had lived in difficult conditions, such as extreme poverty and psychopathology of parents, among others [13], [22]. Later, the focus of studies on resilience manages to transcend the traditional view of adversity versus the presence of psychopathology, to that of adversity versus the possibility of successful adaptation [22].

Resilience can transform or strengthen those facing adversity, maintain adaptive behaviors, allow normal development or promote growth beyond the present level of functioning. Thus, it can be identified as resilience in physically disabled students, to their ability to overcome the risks and avoid negative results, in behavioral, psychological, academic, and even physical terms.

A study by the Colombian Institute of Family Welfare reports that involving 1200 children from the different geographical areas in one country, it was investigated which factors favor a healthy and adaptive response to adverse situations. The results showed that 80% of the cases presented a high adaptation in the presence of protective factors. The above reinforces the idea that a subject can not only overcome adversity but is able to build on it, turning these obstacles into development opportunities.

3. Results and Analysis

In order to determine the relationship between physical disability and resilience, the SV-RES test prepared by the researchers [23] was applied to the 35 disabled students who are the object of the study, where the following results could be obtained. Table 3 shows the result of the statistical analysis related to the study of the resilience of disabled youth.

Table 3
Results of the study on resilience of disabled youth

Dimensions	HIGH		AVERAGE		LOW	
	Quantity	Percentage (%)	Quantity	Percentage (%)	Quantity	Percentage (%)
Identity	4	11	21	60	10	29
Autonomy	3	9	20	57	12	34
Satisfaction	2	6	17	50	16	44
Pragmatism	3	9	19	54	13	37
Links	4	11	20	57	11	32
Networks	3	9	18	51	14	40
Models	3	9	17	50	15	41
Goals	4	11	21	60	10	29
Affectivity	5	14	19	54	11	32
Self-efficacy	4	11	20	57	11	32
Learning	5	14	17	50	13	36
Generativity	3	9	19	54	13	36

Source: Prepared by the authors of the work based on the results of the resilience test

Figure 1. shows the comparative graphical relationship of the results of the resilience study of young people with physical disabilities.

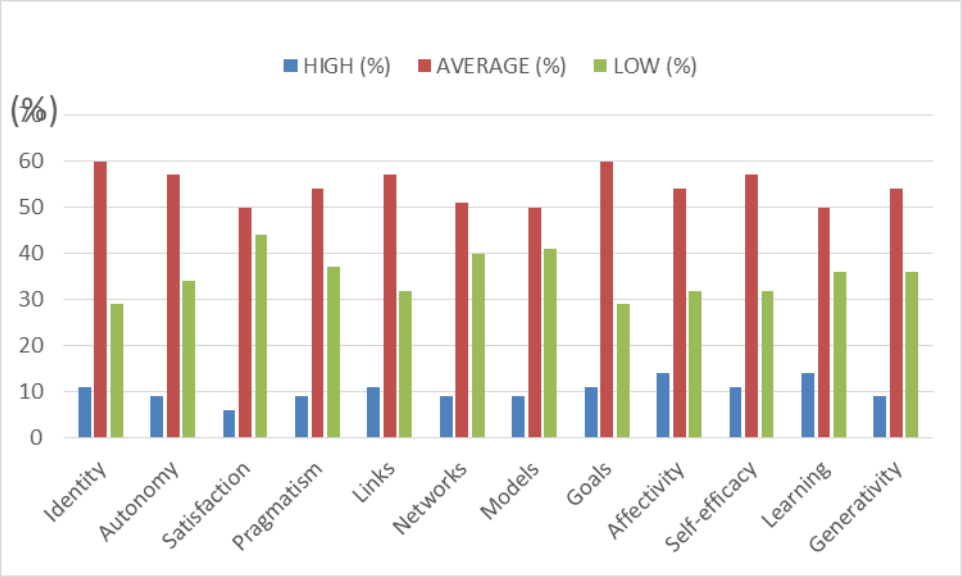

Figure 1. Results of the resilience study of young people with physical disabilities

The result of the test made it possible to verify that there is a close relationship between the level of resilience and the degree of disability of the students since the number of students with a high level of resilience is relatively proportional to the number of students who have between 10% and 39% disability. In the same way, it happens with those who have a high degree of disability, who manifest a proportionality about the level of under resilience.

4. Conclusion

The investigation made it possible to determine the relationship between the degree of physical motor disability of the students and the level of resilience, being able to verify that the greater the degree of disability, the resilience is usually lower.

Considering that motor disability is a type of disadvantage that in the personal physical aspect can not be eliminated and taking into account the impact. It represents the level of resilience of students, it is important to consider psychological support through resilience workshops or other activities, that allow raising the resilience of students who suffer from this disability.

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